

Amendments to the Claims

1(currently amended). A process for isolation of epothilone B from an epothilone-producing microorganism comprising:

- (a) fermenting a strain of epothilone-producing microorganism in the presence of a resin that adsorbs epothilone B by hydrophobic interaction;
- (b) collecting the resin in a water-based medium;
- (c) extracting the resin with a solvent selected to extract epothilone B and to separate it from the water-based medium; and
- (d) crystallizing epothilone B from the extraction phase;

wherein said fermentation step further comprises feeding an additive capable of improving the amount of epothilone B produced as compared with the amount of epothilone A produced.

2(original). The process of claim 1 wherein the crystallized epothilone B from step (d) is substantially pure.

3(original). The process of claim 1 wherein the resin is extracted with a polar solvent.

4(canceled).

5(currently amended). The process of claim [[4]] 1 wherein said fermentation step further comprises fermenting said epothilone-producing microorganism in the presence of skim milk, soy flour, yeast extract, maltrin starch, and/or glycerol.

6(currently amended). The process of claim 1 wherein said fermentation step comprises continuously feeding an said additive capable of improving the ratio of epothilone B to epothilone A.

7(currently amended). The process of claim [[4]] 1 wherein said additive is a propionic acid salt or ester.

8(original). The process of claim 7 wherein said additive is sodium propionate, propionic acid methyl ester or propionic acid ethyl ester.

9(original). The process of claim 1 wherein the crystallization is conducted to reduce the amount of epothilone A to about 55% or less of the amount of epothilone A present after extraction step (c).

10(original). The process of claim 9 further comprising

(e) at least a second crystallization step effective to reduce the amount of epothilone A to about 55% or less of the amount of epothilone A present after crystallization step (d).

11(original). The process of claim 1 wherein the epothilone-producing microorganism is *Sorangium cellulosum*.

12(original). The process of claim 11 wherein said microorganism is *Sorangium cellulosum* strain ATCC No. PTA 3880.

13(original). The process of claim 11 wherein said microorganism is *Sorangium cellulosum* strain ATCC No. PTA 3881.

14(original). The process of claim 1 wherein the resin is a styrene/divinylbenzene-based polymer.

15(currently amended). The process of claim 14 wherein the resin is present in a range of from about 0.2 w/v% to about 5.0 w/v%.

16(previously presented). The process of claim 1 wherein said step (d) comprises:

- (i) adding a second solvent in which epothilone B is either not soluble or sparingly soluble;
- (ii) removing at least a portion of the extraction solvent; and
- (iii) transitioning the resultant solvent or solvent mixture to a temperature at which epothilone B crystallizes.

17(original). The process of claim 16 wherein the extraction solvent is ethyl acetate or MTBE, and the second solvent is toluene.

18(previously presented). The process of claim 1 further comprising:

(f) prior to step (c), washing the resin with aqueous acetonitrile, or aqueous methanol, or an aqueous medium comprising a detergent and an amine reagent added in base form, the aqueous medium selected to not elute epothilone B.

19(original). The process of claim 1, wherein step (c) further comprises polish filtering the epothilone B containing solvent.

20-47(canceled).

48(new). The process of claim 1, wherein epothilone B and epothilone A are produced in an epothilone B/A ratio of at least one.

49(new). The process of claim 1, wherein epothilone B and epothilone A are produced in an epothilone B/A ratio of at least 1.5.

50(new). The process of claim 1, wherein epothilone B and epothilone A are produced in an epothilone B/A ratio in the range of 1.5 to 4.0.